

~~XXXXXXXXXX~~ BANZBURG, S.Ye.

FUTER, D.S., professor

"Epidemic infantile paralysis," S.B. Banzburg, Kopelevich, S.M.
Reviewed by D.S. Futer. *Pediatrics* no. 3:85-86 Ny-Je '55 (MLRA 8:10)
(POLIOMYELITIS) (BANZBURG, S.B.) (KOPELEVICH, S.M.)

STURMAN, A.V., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); BULGAKOV, Yu.N., veter. fel'dsher (Strashenskiy rayon, Moldavskaya SSR); KAL'NITSKIY, P.I., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); OCHAKOVSKIY, Z.M., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); GOTSENOGA, A.D. (Strashenskiy rayon, Moldavskoy SSR); ABRAM-YAN, G.I., veter. vrach; MEKHTIYEV, M.G., veter. fel'dsher (s. Shi-rozlu, Vedinskogo rayona Armyanskoy SSR); KIRAKOSYAN, A.A., veter. vrach; GEORGIYEV, Yu.P., veter. vrach; LOMAKIN, A.M., nauchnyy so-trudnik; SHEPELEV, L.A., veter. vrach.; TARASOV, I.I., assistant; ROMASHKIN, V.M., veter. tekhnik; ANDRIYAN, Ye.A.; BARTENEV, V.S.; KOROL', Ye.I., veter. tekhnik; YEROSHENKO, A.K., aspirant; BANZEN, Ya.P.; SARAYKIN, I.M., prof.; ZHEVAGIN, A.N., veter. vrach; BUT'-YANOV, D.D., veter. vrach (Klimovichskiy rayon, Mogilevskoy oblas-ti BSSR); SHALYGIN, B.V., veter. vrach (Klimovichskiy rayon, Mogi-levskoy oblasti, BSSR); RYABOKON, G.T., veter. fel'dsher; MOVSUM-ZADE, K.K., prof.; DUGIN, G.L., aspirant; TITOV, G.I., nauchnyy sotrudnik; MEDVEDEV, I.G., veter. vrach.; ALIKAYEV, V.A.; ALLENOV, O.A., veter.vrach.

Prophylaxis and treatment of noninfectious diseases in calves and piglets. Veterinariia 40 no.2:40-47 F '63. (MIRA 17:2)

1. Ul'yanovskaya oblastnaya veterinarno-bakteriologicheskaya labo-ratoriya (for Sturman). 2. Kolkhoz imeni Kirova. Volokonovskogo
(Continued on next card)

BACS, Istvan, fofelugyelo (Budapest)

International aspects of the new timetable in use. Vasut 15
no.2:1-2 F '65.

1. Hungarian State Railways.

BAPAT, YA. N., CAND TECH SCI, ^{"Study"} ~~INVESTIGATION~~ OF SEMI-
CONDUCTOR CURRENT SWITCHES USED IN HIGH-SPEED ^{machines/} COMPUTERS.
MOSCOW, 1960. ^(Lower Engineering) MIN OF HIGHER AND SEC SPEC ED RSFSR. Mos-
COW ORDER OF LENIN ~~ENERGY~~ INST). (KL, 2-61, 207).

-115-

S/105/60/000/06/17/023
B014/B011

AUTHORS: Bapat, Ya. N., Kaganov, I. L.

TITLE: A Quick-acting Semiconductor Switch^{35c} and Trigger for Electronic Computers

PERIODICAL: Elektrichestvo, 1960, No. 6, pp. 76-81

TEXT: In the introduction the acceleration of the computing process is referred to as one of the principal problems facing electronic computers. The velocity of such process depends on the duration of the pulse fronts of input and output voltages. The duration of the fronts depends on the saturation of the triode bases, and a circuit with acceleration capacities was suggested (Ref. 1), which does not permit saturation. With a view to preventing saturation, a circuit operating on an unsaturated basis was suggested. This circuit is shown in Fig. 1. Here, the triodes, T_1 and T_2 are linked with the current source by way of the emitter circuit. This circuit was developed by H. S. Yourke (Ref. 2). The function of this circuit is discussed and it is stated that due to the

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A Quick-acting Semiconductor Switch and
Trigger for Electronic Computers

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absence of saturation this trigger is an excellent current switch. The circuit offered here cannot be used directly in computers, in which the circuits are grouped. Fig. 3 shows such a type of circuit, that can be applied to computers, and the function of the circuit is discussed in detail. The large number of current sources of this circuit is considered to be a drawback; this number can be reduced to 1, if the circuit of Fig. 4 is used. M. M. Samokhvalov and N. S. Spiridonov are mentioned in the following discussion of the operating speed of the circuit (Ref. 3). Formulas are given for the calculation of the circuit elements, and the circuits with two voltage sources (Fig. 3) and with one voltage source (Fig. 4) are dealt with separately. One of the main characteristics is said to be the load-carrying capacity, i.e. the one depending on the number of input and output signals, in which a stable operation is possible. The circuit shown in Fig. 7 is investigated. Experiments made on the switching speed show that the duration of pulse fronts rises with increasing number of triodes connected in parallel. This is related with an increase in the output capacitance. The temperature stability is shown in the diagram of Fig. 10. By introducing a feedback between the keys in these circuits, one obtains a trigger. Such a trigger is shown

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A Quick-acting Semiconductor Switch and
Trigger for Electronic Computers

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in Fig. 11. Its advantages are briefly discussed. There are 11 figures
and 4 references: 2 Soviet and 2 American.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of
Power Engineering)

SUBMITTED: March 10, 1960

Card 3/3

✓c

31827
S/194/61/000/010/029/082
D222/D301

9.7100

AUTHORS: Bapat, Ya.N. and Kaganov, I.L.

TITLE: Current-switching logical elements

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 10, 1961, 32, abstract 10 B210 (Tr. Mosk. energ.
in-ta, 1961, no. 34, 5-15)

TEXT: Typical logical units, triggers and half-adders
built with transistors of the alloyed and drift types are described.
The calculation of these circuits is given. Experimental investi-
gation of these elements have shown that the supply voltages can
vary within $\pm 15\%$ individually, without influencing the duration of
the front or the delay, if the other voltages are kept constant.
The parameters of elements have been found which can give high stab-
ility and speed in computers, enabling a switching speed of 5-10
mc/s to be reached when П-402 (P-402)-type transistors are used, X

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Current-switching logical elements

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and 500 kc/s with the П-11 (P-11) and П-15 (P-15) transistors.
6 figures. 6 references. [Abstracter's note: Complete translation]

4

Card 2/2

LAPIN, V., arkhitektor; BAPISHEV, Ch., arkhitektor

Planning residential sections in Alma-Ata. Zhil. stroi. no.7:14-16
'59. (MIRA 12:10)

(Alma-Ata--City planning)

BASENOV, T.; BAPISHEV, Ch.

Development of the cities and towns of Kazakhstan. Zhil. stroi.
no.8:16-18 '62. (MIRA 15:9)

1. Zamestitel' predsedatelya Gosstroya Kazakhskoy SSR (for
Basenov). 2. Rukovoditel' sektora Kazakhskogo filiala Akademii
stroitel'stva i arkhitektury SSSR (for Bapishev).
(Kazakhstan--City planning)

BAPTIDANOV, L.N.

BABIKOV, M.A., professor; KOMAROV, N.S.; SERGEYEV, A.S.; AKOPYAN, A.A.,
retsensent; DOLGINOV, A.I., retsensent; BAPTIDANOV, L.N., redaktor.

[Textbook on high voltage technology] Tekhnika vysokikh napria-
zhenii. Pod. red. M.A.Babikova. Moskva, Gos. energ. izd-vo, 1947.
312 p. (MLRA 7:4)

(Electric engineering)

BAPTIDANOV, L.N.

Elektrooborudovanie elektricheskikh stantsii i podstantsii (Electrical equipment of electric stations and substations). V 3-kh t. Izd. 2-e, perer. Moskva, Gosenergoizdat. Vol. 3. Releinaia zashchita i osnovnye svedeniia ob avtomaticheskoi vklucheni linii i transformatorov (Protective relays and basic information on the automatic connection of lines and transformers). 1953. 159 p.

SO: Monthly List of Russian Accessions, Vol 7, No. 8, Nov. 1954

BAPTIDANOV, L. N.

Subject : USSR/Electricity AID P - 1304
Card 1/1 Pub. 27 - 28/30
Author : Baptidanov, L. N., Kand. of Tech. Sci., Dotsent, Moscow
Title : Book Review: Historical outlines of power engineering
in the USSR. Monographic historical studies edited by
the Moscow Power Engineering Institute im. Molotov,
published by the State Power Engineering Publishing
House, 1954.
Periodical : Elektrichestvo, 1, 85-86, Ja 1955
Abstract : The author reviews 9 of the series of 32 monographs
planned and emphasises the importance of this publication.
Institution : None
Submitted : No date

UGORETS, I.I.; GLAZUNOV, A.A.; SYROMYATNIKOV, I.A.; KASHUNIN, I.S.; POSTNIKOV,
N.A.; RADTSIG, V.A.; UL'YANOV, S.A.; GRUDINSKIY, P.G.; VASIL'YEV, A.A.;
KUVSHINSKIY, N.N.; BAPTIDANOV, L.N.; TARASOV, V.I.; KRIKUNCHIK, A.B.;
SHAPIRO, A.B.; BIBIKOV, V.V.; DVOSHIN, L.I.; KLINGOF, I.D.; KARPOV,
M.M.; USPENSKIY, B.S.; CHALIDZE, I.M.; BLOCH, Ya.A.; SHMOTKIN, I.S.

Iosif IAKevlevich Gumin; obituary. Elek.sta.26 no.12:58 D '55.
(Gumin, Iosif IAKevlevich, 1890-1955) (MIRA 9:4)

BAPTIDANOV, L.

BAPTIDANOV, Lev Nikolayevich; TARASOV, Vladimir Il'ich; BRANDENBURGSKAYA,
~~E.I.A., red.; VORONIN, K.P., tekhn.red.~~

[Electric stations and substations] Elektricheskie stantsii i
podstantsii. Moskva, Gos. energ. izd-vo, 1958. 464 p.
(Electric power distribution) (MIRA 11:3)

PHASE I BOOK EXPLOITATION SOV/4748

Baptidanov, L. N., and V. I. Tarasov

Elektrooborudovaniye elektricheskikh stantsiy i podstantsiy; v dvukh tomakh, Tom 2: Skhemy elektricheskikh soyedineniy. Sobstvennyye nuzhdy. Rasprede-litel'nyye ustroystva. Kontrol', upravleniye i signalizatsiya. Zazemleniye (Electric Equipment of Electric Power Plants and Substations; in two volumes, Vol. 2: Diagrams of Electric Connections. Auxiliaries. Distributing Equip-ment. Checking, Control, and Signaling. Grounding) 3d ed., rev. Moscow, Gosenergoizdat, 1959. 320 p. 85,000 copies printed.

Ed.: Ye. D. Demkov; Tech. Ed.: G. Ye. Larionov.

PURPOSE: The book has been approved by the administration of educational methods for secondary specialized schools of the Ministry of Higher and Secondary Specialized Education USSR as a textbook for students in power-system tekhnik-ums. It may be used as a textbook for students in schools of higher technical education when this course is not a major subject. The book may also be use-ful for medium-level technical personnel of electric power stations, substations, and networks.

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Electric Equipment of (Cont.)

SOV/4748

COVERAGE: The book discusses electric-connection diagrams, problems of station and substation auxiliaries, the construction of indoor, outdoor, and factory-assembled distribution systems, transformer substations, and determination of the operating current. The authors present basic information on relay protection and on electric automation, discuss the checking and measuring systems, control, signalling and blocking systems. They present data on the grouping of basic equipment of electric stations and substations and describe the installation and computation of groundings. In the second edition of the book a third volume was devoted to problems of relay protection and automation. Recently two tekhnikum-level textbooks were published dealing with the following subjects: "Releynaya zashchita" (Relay Protection) by N. V. Chernobrovov; and "Sistemnaya avtomatika" (System Automation) by A. B. Barzam. However, the use of these textbooks may create difficulties for people who have had no introductory courses in this field. For this reason the authors included basic information on relay protection and automation in the 2nd volume. Sections 1 to 6 in Ch. VI., Section 2 in Ch. XI., and Ch. XXI. were written by L. N. Baptidanov; the remaining text was written by V. I. Tarasov. No personalities are mentioned. There are 46 references, all Soviet.

Card ~~2/10~~

BAPTIDANOV, Lev Nikolayevich; TARASOV, Vladimir Il'ich; DEMKOV, Ye.D.,
red.; ASANOV, P.M., tekhn.red.

[Electric equipment of electric power plants and substations in
two volumes] Elektrooborudovanie elektricheskikh stantsii i pod-
stantsii v dvukh tomakh. Moskva, Gos.energ.izd-vo. Vol.1.
[Basic electric equipment of electric power plants and substations]
Osnovnoe elektrooborudovanie elektricheskikh stantsii i podstantsii.
Izd.3., perer. 1960. 408 p. (MIRA 13:6)
(Electric power plants) (Electric substations)

BAPTIDANOV, Lev Nikolayevich, kand. tekhn. nauk; VASIL'YEVA,
Antonina Pavlovna, assistant

[Manual on the industrial training of students of electric
power engineering departments in a training power plant] Po-
sobie po proizvodstvennomu obucheniiu studentov elektroener-
geticheskogo fakul'teta na uchebnoi elektricheskoi stantsii.
Moskva, Energet. in-t. No.3. 1961. 74 p. (MIRA 17:2)

SHMIDT, G.A.; BAPTIDANOVA, Yu.P.

Characteristics of the growth and development of the blastocyst and trophoblastic vesicle in the cow and sheep. Dokl. AN SSSR 160 no.1:246-248 Ja '65.

(MIRA 18:2)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
Submitted May 6, 1964.

BAPTIZMANSKIY, V. I.

42312: BAPTIZMANSKIY, V. I. - K voprosu o rezhime okhlazhdeniya slitkov. Nauch. Trudy (Dnepropetr. metallurg. in-ta im. Stalina), VYP. 14, 1948. s. 45-62- Bibliogr: 11 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

...BAPTIZMANSKIY, V. I.

189T76

USSR/Metals - Thermal Treatment

Jul 51

"Destruction of Ingots Under Thermal Stress," V. I. Baptizmanskiy

"Zhur Tekh Fiz" Vol XXI, No 7, pp 822-831

Finds by analysis of stressed state appearing in ingots during cooling and heating that thermal destruction occurs by tearing. Suggests method allowing computation of limiting range of temps and speed of cooling and heating of manufd articles. Submitted 10 Jun 50.

LC

189T76

Heats of solution of electrolytes V. I. Ryzhikovskii

Heats of solution of electrolytes, by considering the formation of the crystal lattice, the heat of hydration of the ions, and the heat of solution of the electrolyte, the heat of solution of the electrolyte can be calculated.

The heat of solution of the electrolyte can be calculated by considering the formation of the crystal lattice, the heat of hydration of the ions, and the heat of solution of the electrolyte.

The heat of solution of the electrolyte can be calculated by considering the formation of the crystal lattice, the heat of hydration of the ions, and the heat of solution of the electrolyte.

BAPTIZMANSKIY V.I.

Answer to I.S.Kulikov's review. Ukr.khim.zhur. 19 no. 4:
457-460 '53. (MLRA 8:2)

1. Dnepropetrovskiy metallurgicheskiy institut im. I.V. Sta-
lina.
(Heat of solution)(Electrolytes)(Kulikov, I.S.)

... which had freed of solid impurities ... the benzene are care-
concluded ...

BAPTIZMANSKIY, V.I.

Solubility of electrolytes. Ukr.khim.zhur. 20 no.5:487-495 '54.
(MIRA 8:1)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Electrolytes) (Solubility)

of the same order. The changes for NI, II, & C, are
C. V. E. T.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000103420004-7

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000103420004-7"

BAPTIZMANSKIY, V.I.

KUZNETSOV, M.P.; REKHLIS, G.N.; POLOVSHENKO, I.G.; KRAMNIK, T.A.; YENLIK, B.I.;
BAPTIZMANSKIY, V.I.; SOROCHAN, N.G.; PLETAYEV, B.L.

Research carried on at the Dzerzhinskii Plant. Stal' 16 no.8:749-750
Ag '56. (MLRA 9:10)

(Dneprodzerzhinsk--Metallurgy)

Baptizmanskiy, V.I.

AUTHOR: Prosvirin, K.S. and Baptizmanskiy, V.I., Dnepropetrovsk²³⁵
Metallurgical Institute, and Kuznetsov, M.P. and Umnov, V.D.,
Dzerzhinskii Works.

TITLE: Use of magnesium in converter-steel production. (Primenenie
magniya pri proizvodstve konverternoy stali.)

PERIODICAL: "Metallurg" (Metallurgist),
1957, No. 1, pp. 16 - 17, (U.S.S.R.)

ABSTRACT: Works trials at the Dzerzhinskii bessemer shop aimed at
improving the plastic properties of converter rail steel by
treatment with magnesium are described. The magnesium alloy
(64% Si, 11.8% Mg) partially or fully replaced the 45% ferro-
silicon, used for deoxidation in the ladle, to give the required
silicon content. 20 or 60 kg of silicomagnesium were added to
various heats, weighing 22.5 tons each. The introduction of
magnesium to the liquid steel was found to give a finer grain
size, reduce the size and quantity of non-metallic inclusions
and the sulphur content, appreciably improve elongation and
reduction in area, and give steel with a toughness approxim-
ating to that of O.H. steel.
3 tables, 1 graph.

(Met. Inst. Dnepros Toy)

BAPTISMANSKIY, V.I., OGRYZKIN, ^{E.M.}~~O.B.~~

"Experience of the Oxygen Converter Refining of Phosphor Cast-Iron,"
lecture given at the Fourth Conference on Steelmaking, A.A. Baikov Institute of
Metallurgy, Moscow, July 1-6, 1957

BAPTISMANSKIY, V.I.

Mechanism and Kinetics of the Converter Bath Processes,"
lecture given at the Fourth Conference on Steelmaking, A.A. Baikov Institute of
Metallurgy, Moscow, July 1-6, 1957

BAPTIZMANSKIY, V.I.

137-1958-1-357

Translation from. Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 55 (USSR)

AUTHOR: Baptizmanskiy, V.I.

TITLE: Mechanism and Kinetics of the Processes in a Converter Bath
(Mekhanizm i kinetika protsessov v konverternoy vanne)

PERIODICAL: V sb.: Fiz.-khim. osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 28-41. Diskus. pp 160-187

ABSTRACT: Simulation of a converter blow using water, Hg, and aqueous salt solutions as the liquid shows that when the blast exceeds one atmosphere gage pressure the air enters the liquid as a stream that takes up the liquid to form an emulsion. Under the conditions obtaining in a converter, the emulsified drops of metal oxidize to form drops of FeO and, intermixing with the mass of metal, scatter [O]. Simultaneously, the stream is broken up with bubble formation, and these promote circulation of the liquid. It was found under industrial conditions that the slag is taken up and emulsified in the stream along with the metal. An investigation of nonmetallic impurities in the metal conducted during the blow revealed that at the beginning these consist of silicates with elevated Fe oxide contents, testifying to the primary oxidation of Fe. Then

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137-1958-1-357

Mechanism and Kinetics of the Processes in a Converter Bath

the quantity of these nonmetallic impurities declines and the amount of dispersed silicates increases continually until the end of the blow. This is explained by the entry of additional nonmetallic impurities into the metal due to the breakdown of the slag. A relationship has also been established between the SiO_2/FeO ratio in the nonmetallic impurities and the Si/Mn ratio in the pig iron. Simulation of the process with oil in place of the slag showed the dependence of the amount of emulsified oil on its viscosity. An investigation of the kinetics of C oxidation under laboratory conditions showed that at bath temperatures of appx. 1250° the chemical reaction does not limit the process of C oxidation. Measures to diminish the gas saturation and contamination of Bessemer steel with nonmetallic impurities are examined.

E.T.

1. Steel-Manufacture
2. Bessemer converters--Operation--Analysis

Card 2/2

VARNAVSKIY, I.N.; MIKHAYLIKOV, S.V., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; BAPTIZMANSKIY, V.I., kand. tekhn. nauk, dots.; LEVIN, S.L., prof., doktor tekhn. nauk.; OYKS, G.N., prof., doktor tekhn. nauk; GERBER, M.S.; BIGEYEV, A.M., kand. tekhn. nauk, dots.; LIFSHITS, S.I., kand. tekhn. nauk; POLYAKOV, A.Yu., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; FOFANOV, A.A., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; OGRIYKIN, Ye.M.; GONCHARENKO, N.I., kand. tekhn. nauk; ABRAMOV, B.A., nauchnyy sotrudnik; MALINOVSKIY, V.G.; LAPOTYSHKIN, N.M., kand. tekhn. nauk; AFANAS'YEV, S.G., kand. tekhn. nauk; SHUMOV, M.M., starshiy nauchnyy sotrudnik; IVANOV, Ye.V.; EPSHTEIN, Z.D., starshiy nauchnyy sotrudnik.

Discussions. Biul. TSNIICEM no.18/19:107-119 '57. (MIRA 11:4)

1. Nachal'nik konvertirnogo tsekha Orsko-Khalilovskogo kombinata (for Varnavskiy. 2. Institut metallurgii Ural'skogo filiala AN SSSR (for Mikhaylikov, Abramov). 3. Direktor Ukrainakogo instituta metallov (for Goncharenko). 4. Dnepropetrovskiy metallurgicheskii institut (for Baptizmanskiy, Levin). 5. Zaveduyushchiy kafedroy metallurgii stali Moskovskogo instituta stali (for Oyks). 6. Zaveduyushchiy laboratoriyey Yenakiyevskogo metallurgicheskogo tekhnikuma (for Gerber). 7. Kafedra metallurgii stali Magnitogorskogo gorno-metallurgicheskogo instituta (for Bigeyev). 8. Rukoboditel' konverternoy gruppy Tsentral'noy zavodskoy laboratorii zavoda im. Petrovskogo (for Lifshits). 9. Institut metallurgii im. Baykova AN SSSR (for Polyakov).

(Continued on next page)

VARNAVSKIY, I.N.---(continued) Card 2.

10. Ural'skiy institut metallov (for Pofanov).
 11. Institut chernoy metallurgii AN USSR (for Ogryzkin).
 12. Nachal'nik Tsentral'noy zavodskoy laboratorii Yenakiyevskogo metallurgicheskogo zavoda (for Malinovskiy).
 13. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Iapotyshkin, Shumov, Epshteyn).
 14. Nachal'nik konverternoy laboratorii Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii (for Afanas'yev).
 15. Nachal'nik laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta ogneporov (for Ivanov).
- (Bessemer process)

AUTHOR: Baptizmskiy, V. I.

SOV/163-53-3-3/49

TITLE: Investigating the Influence of Some Parameters on the Steel Melting Process in the Converter (Analiz vliyaniya nekotorykh parametrov na protsess vyplavki stali v konvertere)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 3, pp 15 - 21 (USSR)

ABSTRACT: The influence of some parameters, the interaction of the gas flow with the liquid, the mixing of the slag with metal etc. were investigated under laboratory semi-technical conditions. When blasting through the metal melt the influence of various factors on the penetration depth of the gas current is of importance. The investigations showed that the penetration depth of the gas current (x_{\max}) depends on the blasting pressure, the height of the melting layer(x_1), the diameter of the melt (d), and the density of the melt. The factors having effect on the penetration depth of the non-adsorbed gas current at a blasting pressure of > 1 atmospheres excess pressure and a cylindrical

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Investigating the Influence of Some Parameters on the Steel SOV/163-58-3-3/49
Melting Process in the Converter

shape of the converter are represented by the following equation:

$$x_{\max} = K \cdot \frac{p^{1/2} d^{1/2} \div 2/3}{(1 + \frac{x_1}{dB}) \cdot \gamma_{\text{liqu.}}^{1/2}} \quad (2)$$

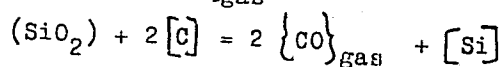
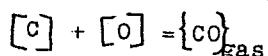
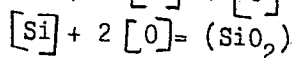
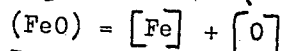
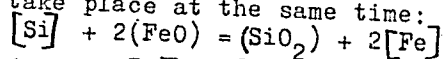
The mixing of the slag with metals was investigated at different blasting conditions. It turned out that in the converter, when blasted from below, small inclusions of the metal melt may be observed. In figure 2 the change of the carbon-, oxygen- and silicon content in the metals during the blowing process is given. From this test series may be seen that the concentration of the oxygen in the metal constantly increases with the increase of the blasting, and that it takes a jump-like course. In the beginning of the blasting an intense oxidation of manganese and silicon occurs at the phase boundary. Also a considerable

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Investigating the Influence of Some Parameters on the
Steel Melting Process in the Converter

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impoverishing in silicon occurs, and the oxygen content amounts to 0,002%. In the case of a further increase of the oxygen content a decarburization occurs. Five reactions take place at the same time:



During the oxidation period of carbon simultaneously the degassing of the metal melt from CO occurs. During the blasting the solubility of the nitrogen in the moisture of the metallic phase may be found. The amount of dissolved nitrogen in metal is calculated by means of the following formula:

Card 3, 4

Investigating the Influence of Some Parameters on the
Steel Melting Process in the Converter

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$$[N]_{\text{Blast}} = K_N \sqrt{P_{N_2}^{\text{Blast}}} = K_N \sqrt{\frac{P \{ \% N_2 \}}{100}} \quad (13)$$

The dependence of the nitrogen content in the steel on the composition of the blast air and the type of addition to the metal melt was investigated. In figure 4 the dependence is shown. The experimental and theoretical data agree well, as by the equation (14) the gas composition in the steel and the gas composition in the blast air were given. From equation (14a) may be seen that the concentration of hydrogen in steel does not only depend on the moisture in the blast air but also on its oxygen content. There are 4 figures and 1 reference, which is Soviet.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk
Metallurgical Institute)

SUBMITTED: October 4, 1957

Card 4/4

AUTHOR: Baptizmanskiy, V. I. SOV/163-58-3-15/49

TITLE: Metal Ejection From the Converter and the Means of Fighting It (Vybrosoy iz konvertera i bor'ba s nimi)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 3, pp 81 - 86 (USSR)

ABSTRACT: The spürting out of the metal and the slag from the converter considerably affects the economy and the yield of liquid steel. The cause for this phenomenon is discussed. The experiments were carried out partly on industrial and partly on a laboratory scale. It was found that in blasting through the lower part of the converter the spürting out is caused by the formation of waves which are formed when a certain blowing pressure is exceeded. These waves propagate diametrically and end in the metal melt. The impact of these waves against the converter wall leads to an ejection. Besides, the dependence of the ejection on the level of the metal melt and the construction of the converter bottom was investigated.

Card 1/3 The forces of internal friction play an important part

Metal Ejection From the Converter and the Means of
Fighting It

SOV/163-58-3-15/49

in the formation of the ejection phenomena. The most effective means to fight the ejection of metal from the converter is blasting in a converter with a bottom in which the blast holes are equally distributed. The boiling state of the metal melt is also of importance for the ejection of metal. This influence is explained by the fact that with an increase of the oxidation rate an accelerated CO-separation takes place. The elimination or decrease of the boiling processes of the slag in the converter also prevents an ejection. In the systems FeO-SiO_2 , MnO-SiO_2 and CaO-SiO_2 the alumina increases the surface tension and at the same time decreases the tension at the boundary slag-gas. An increase of the SiO_2 concentration in basic slags accelerates the boiling in the metal melt and promotes an ejection. From the results obtained may be seen that by decreasing the SiO_2 content of the melt an ejection of metal from the converter may be avoided. There are 4 figures and 16 references, 12 of which are Soviet.

Card 2/3

Metal Ejection From the Converter and the Means of
Fighting It

SOV/163-58-3-15/49

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk
Metallurgical Institute)

SUBMITTED: October 4, 1957

Card 3/3

BAPTIZMANSKIY, V.I., kand. tekhn. nauk, dots.; OGHYZKIN, Ye.M., inzh.

Investigating the process of injecting oxygen into phosphorus pig
iron. Izv. vys. ucheb. zav.; chern. met. no.4:11-22 Ap '58.
(MIRA 11:6)

1. Dnepropetrovskiy metallurgicheskiy institut i Institut chernoy
metallurgii AN USSR.

(Bessemer process) (Oxygen--Industrial applications)

BAPTIZMANSKIY, V.I.

КОНВЕРТЕРНОЕ ПРОИЗВОДСТВО СТАЛИ	
В.И.Савицкий	Некоторые вопросы механизма и кинетики процесса в конвертерной ванне.
В.М.Побережко М.П.Леонов А.Е.Хабаров А.М.Семин	Лабораторные опыты по продувке аргоном-кислородом чугунов.
М.П.Соболев В.Д.Воробей	Исследования по модели гидродинамики конвертерной ванны.
М.П.Кочко	Передель чугуна с повышенным содержанием марганца в конвертере с промышленным кислородом.
М.М.Шуко	Выжигание стали и полупродукта из аргоно-кислородового промышленного чугуна.
У.А.Ахмедов В.В.Гурьев В.Д.Войткевич	Организовано исследование условий выжигания, дефосфорации и обезуглероживания при вакуумном-вакуумно-кислородном выжигании чугуна в конвертере.
В.И.Васильевский В.А.Павловский	Исследования легированности конвертерной стали при выжиге кислородом дутья.
А.И.Маслов А.С.Орловский	Сопоставление данных о металле при различных параметрах конвертерного процесса фосфористый чугун и промышленный кислород.
С.Г.Афанасьев М.М.Шуко М.П.Кочко	Некоторые аспекты исследования температурной зависимости при выжиге чугуна промышленным кислородом.

report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow— 30 Jun 1959.

BAPTIZMANSKIY, V.I.

НЕМЕТАЛЛИЧЕСКИЕ ВКЛЮЧЕНИЯ СТАЛИ

С.И.Павлов	Очистка внешней стали от углеродистых включений
Г.Ф.Ковалев	
С.Е.Волков	Влияние метода раскиснения стали на включенность неметаллических включений.
А.М.Семин	
Д.К.Вуляев	Влияние выпарки на обесфосфоренность и структуру литой стали.
Л.М.Михайлов	
С.Т.Ростовский	Особенности неметаллических включений в температурной обработке стали.
Д.И.Турович	
В.И.Валдайский	
К.А.Пресняков	
В.А.Урванов	Влияние на неметаллическую структуру стали, содержащей титан.
Ю.У.Дуванович	
Дуванов	
Ю.У.Дуванович	Влияние на неметаллическую структуру стали, содержащей титан и ванадий.
Дуванов	
О.В.Давыдов	
Е.В.Круглов	
А.И.Ковалев	Особенности раскиснения в прокате неметаллической стали.
С.Т.Волков	Разработка и внедрение новой технологии выплавки перманганомарганцевой стали.
П.М.Давыдов	
В.П.Карпов	Влияние пути раскиснения на неметаллическую структуру стали.
П.М.Алексеев	

report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow— 30 Jun 1959.

18(3)

AUTHORS:

Baptizanskiy, V. I., Dubrovskiy, Yu. A., SOV/163-59-1-6/50
Lapitskiy, V. I., Poyarkov, A. M., Rostovtsev, S. T.,
Sesuk, G. S., Ogryzkin, Ye. M.

TITLE:

Conversion of High-phosphorus Pig Iron in Oxygen-blast Con-
verters (Peredel vysokofosforistogo chuguna v konvertere s
kislородnym dut'yem). Communication I. Conversion of High-
phosphorus Pig Iron in a Converter With Combined Lateral Blast
(Soobshcheniye I. Peredel vysokofosforistogo chuguna v konver-
tere s bokovym kombinirovannym dut'yem)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 1,
pp 25-27 (USSR)

ABSTRACT:

The results obtained by the investigations carried out in the
steel melting laboratory of the DMI from 1956-1957 are presen-
ted. The collaborators of the IChM AS UkrSSR assisted in the
recording of the case histories of the heats, and in the
selection and analysis of metal and slag samples. In the IChM
AS UkrSSR in collaboration with the DMI the converting of
Kerch pig iron in the laboratory furnace was investigated. For
this purpose the 0.9-1.0 t laboratory converter was adapted to
combined lateral blasting. The converter had a capacity of

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Conversion of High-phosphorus Pig Iron in Oxygen-
blast Converters. Communication I. Conversion of High-phosphorus Pig Iron in
a Converter With Combined Lateral Blast

SOV/163-59-1-6/50

0.85 m³, the depth of the metal bath was 355 mm. Pig iron of the following composition was converted: 3.4 % C-3.8 % C, 1.3-1.8 % P, 1.0-1.3 % Mn, 1.10-0.5 % Si, 0.08-0.20 % S, 0.10-0.25 % V. The pig iron had been melted in a cupola furnace. Previous to converting it had a temperature of 1,140-1,200°. Limestone was added to a percentage of 13-15 of the charge weight. A special device permitted to add the fluxing agents at any moment without interruption of the converting process. In the experiments with combined blasting the air was supplied to the converter through 4 tuyères with a diameter of 40 mm at a pressure of 0.15-0.25 atmospheres excess pressure by a centrifugal blower with a capacity of 50-60 m³/min. The oxygen was supplied through two special copper tubes mounted within the tuyères under 6-10 atmospheres excess pressure. The flow rate of oxygen varied between 1.7-4.2 m³/min the oxygen consumption per ton being 15-25 m³. In this investigation special interest was given to problems of slag formation and of early dephosphorization. Several

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Conversion of High-phosphorus Pig Iron in Oxygen- SOV/163-59-1-6/50
blast Converters. Communication I. Conversion of High-phosphorus Pig Iron in
a Converter With Combined Lateral Blast

methods of blast arrangement were studied. The best results were obtained with the second test series where the inclination of the tuyères was reduced to 0-5° (from the horizontal) and the flow rate was reduced by closing two tuyères. These measures lead to quite respectable results. A comparison with information from publications (Refs 8-10) showed that the formation of slag with a high solution value and the oxidation of the phosphorus proceeds much faster in a converter with a combined air-oxygen blast than in a converter with only bottom or lateral air blast. In converters with combined blast it is possible to produce a slag with a P_2O_5 content meeting the specifications and an ingot steel with a low nitrogen and phosphorus content ($\leq 0.04\%$) without any considerable overconverting. The experiments showed that the following measures must be taken in order to accelerate slag formation and dephosphorization: 1) During the initial stage of the process (25-30 % of the total time) the blast must be directed onto the metal surface or into the upper layer of the bath.

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Conversion of High-phosphorus Pig Iron in Oxygen- SOV/163-59-1-6/50
blast Converters. Communication I. Conversion of High-phosphorus Pig Iron in
a Converter With Combined Lateral Blast

2) A well calcined limestone must be used and it must be given
in portions at certain intervals. There are 10 references,
5 of which are Soviet.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk
Institute of Metallurgy)

SUBMITTED: June 5, 1958

Card 4/4

18(3)

AUTHORS:

Baptizanskiy, V. I., Dubrovskiy, Yu. A., SOV/163-59-1-7/50
Lapitskiy, V. I., Poyarkov, A. M., Rostovtsev, S. T.,
Sesyuk, G. S., Ogryzkin, Ye. M.

TITLE:

Conversion of High-phosphorus Pig Iron in an Oxygen-blast Converter (Peredel vysokofosforistogo chuguna v konvertere s kislородnym dut'yem). Communication II. Conversion of High-phosphorus Pig Iron by Top Blasting (Soobshcheniye II. Peredel vysokofosforistogo chuguna v konvertere s verkhnim kislородnym dut'yem)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 1, pp 28-33 (USSR)

ABSTRACT:

This investigation was carried out with water cooled blast tuyères with a diameter of 8-10 mm, blasting oxygen with a purity of 94-98 % under 5-8 atmospheres excess pressure into the converter. The rate of oxygen supply varied between 3.3-6.1 m³/min, the average oxygen consumption for the last heats was 70 m³/ton. Limestone and for some heats pig iron with a bauxite content of 1.5-2.0 % were used as a fluxing agent. For the last heats limestone-ore briquettes with an

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Conversion of High-phosphorus Pig Iron in an Oxygen- SOV/163-59-1-7/50
blast Converter. Communication II. Conversion of High-phosphorus Pig Iron by
Top Blasting

ore content of about 50 % were used. The fluxing agents were added in portions, 3 to 4 times, in intervals of 1.5-4.0 minutes. All in all 12 experimental heats were prepared. It appeared from the results that the course of slag formation and of dephosphorization in converting high-phosphorus pig iron in a converter with a top oxygen blast are essentially dependent upon the following factors: 1) Upon the iron oxide constituent in the primary slag. 2) Upon the oxygen supply and the rate of oxygen consumption by the heat. Both factors are determined by the circulation in the heat. 3) Upon the state and the composition of the slag constituents. 4) Upon the thickness of the solid phase layer in the converter during the initial stage of converting. 5) Upon the temperature conditions during blasting. The experiments showed that 1) If high-phosphorus pig iron is converted in oxygen top-blast converters the formation of a basic slag with a high solution value, which can be brought up to the specified P_2O_5 content can be guaranteed at the beginning of blasting (by adding up

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Conversion of High-phosphorus Pig Iron in an Oxygen- SOV/163-59-1-7/50
blast Converter. Communication II. Conversion of High-phosphorus Pig Iron by
Top Blasting

to 15 % of limestone). By the same way an early dephosphorization may be ensured and thus a metal with a phosphorus content of less than 0.1 % at a high carbon concentration (1-1.5 %) can be produced. This may be achieved without using fluor-spar or rabbling the slag. 2) In converters of such a type carbon steel can be produced from basic Bessemer pig iron with a low phosphorus content (< 0.05 %) and a low nitrogen content. This may be achieved by stopping the process at the specified carbon content. 3) The formation of a slag with a high solution value and the oxidation of phosphorus in a converter with combined lateral blasting (with a separate air and oxygen supply) proceed much faster than in converters with a bottom and lateral air blast. There are 5 figures and 2 Soviet references.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk
Institute of Metallurgy)

SUBMITTED: June 5, 1958
Card 3/3

TURKENICH, D.I., inzh.; ROSTOVTSEV, S.T., prof.; BAPTIZMANSKIY, V.I., dotsent;
PROSVIRIN, K.S., inzh.

Effect of reduction and modification on the purity and resilience
of converter rail steel. Izv. vys. ucheb. zav.; chern. met. 2 no.3:
21-25 Mr '59. (MIRA 12:7)

1. Dnepropetrovskiy metallurgicheskiy institut. Rekomendovano
kafedroy teorii metallurgicheskikh protsessov Dnepropetrovskogo
metallurgicheskogo instituta..

(Steel--Metallography)

(Railroads--Rails--Testing)

(Bessemer process)

~~BAPTIZMANSKIY, V. I.~~ kand. tekhn. nauk, dotsent

Slag emulsification under the effect of the blow and impurities
in converter steel. Izv. vys. ucheb. zav.; chern. met. 2 no.4:31-43
Ap '59. (MIRA 12:8)

1. Dnepropetrovskiy metallurgicheskiy institut. Rekomendovano
kafedroy teorii metallurgicheskikh protsessov Dnepropetrovskogo
metallurgicheskogo instituta.

(Bessemer process) (Steel--Defects)

KUZNETSOV, M.P., inzh.; BAPTIZMAHSKIY, V.I., dotsent, kand.tekhn.nauk;
PROSVIRIN, K.S., ~~kand.tekhn.nauk~~

Nature of spotty segregation in steel. Izv.vys.ucheb.zav.; chern.
met. 2 no.5:35-39 My '59. (MIRA 12:9)

1. Zavod im. Dzerzhinskogo, Dnepropetrovskiy metallurgicheskiy
institut. Rekomendovano kafedroy teorii metallurgicheskikh pro-
tsessov Dnepropetrovskogo metallurgicheskogo instituta.
(Steel—Defects)

BAPTIZMANSKIY, Vadim Ippolitovich; KHEBNIKOV, A.Ye., prof., doktor tekhn.
nauk, retsenzent; KONDAKOV, V.V., prof., retsenzent; PTITSYNA,
V.I., red, izd-va; KARASEV, A.I., tekhn. red.

[Mechanism and kinetics of processes in the converter bath]
Mekhanizm i kinetika protsessov v konverternoi vanne. Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii.
1960. 283 p. (MIRA 14:1)

(Converters)

BAPTIZMANSKIY, V. I., Doc Tech Sci, "MECHANISM AND KINETICS OF PROCESSES IN ^aTHE CONVERTER BATH." MOSCOW, 1961.
(MIN OF HIGHER AND SEC SPEC ED RSFSR, MOSCOW INST OF STEEL
IN I. V. STALIN). (KL, 3-61, 212).

BAPTIZMANSKIY, V.I.; BAUM, B.A.; YERSHOV, G.S.

Effect of the composition of a fluidized bed on the content of hydrogen in steel. Stal' 22 no.12:1084-1086 D '62.

(MIRA 15:12)

1. Dnepropetrovskiy metallurgicheskiy institut (for Baptizmanskiy).
2. Ural'skiy politekhnicheskiy institut (for Baum, Yershov).
(Fluidization) (Steel—Hydrogen content)

BAPTIZMANSKIY, V. I.

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PHASE I BOOK EXPLOITATION

SOV/5411

Konferentsiya po fiziko-khimicheskim osnovam proizvodstva stali. 5th,
Moscow, 1959.

Fiziko-khimicheskiye osnovy proizvodstva stali; trudy konferentsii
(Physicochemical Bases of Steel Making; Transactions of the
Fifth Conference on the Physicochemical Bases of Steelmaking)
Moscow, Metallurgizdat, 1961. 512 p. Errata slip inserted.
3,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni
A. A. Baykova.

Responsible Ed.: A. M. Samarin, Corresponding Member, Academy
of Sciences USSR; Ed. of Publishing House: Ya. D. Rozentsveyg.
Tech. Ed.: V. V. Mikhaylova.

Card 1/16

g.b.

Physicochemical Bases of (Cont.)

SOV/5411

PURPOSE: This collection of articles is intended for engineers and technicians of metallurgical and machine-building plants, senior students of schools of higher education, staff members of design bureaus and planning institutes, and scientific research workers.

COVERAGE: The collection contains reports presented at the fifth annual convention devoted to the review of the physicochemical bases of the steelmaking process. These reports deal with problems of the mechanism and kinetics of reactions taking place in the molten metal in steelmaking furnaces. The following are also discussed: problems involved in the production of alloyed steel, the structure of the ingot, the mechanism of solidification, and the converter steelmaking process. The articles contain conclusions drawn from the results of experimental studies, and are accompanied by references of which most are Soviet.

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Physicochemical Bases of (Cont.)

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Shumov, M.M. Producing Steel and Semifinished Products in a Converter by Using Naturally Alloyed Chromium Pig Iron 268

Gurevich, B.Ye., V.D. Epshteyn, and T.V. Andreyev. Determining the Optimum Conditions of Slag Formation, Dephosphorization, and Decarburization of High-Phosphorus Pig Iron in a Semicommercial Converter With Oxygen Top Blowing 281

Baptizmanskiy, B.I., and Yu.A. Dubrovskiy. Investigating the Converter-Steel Contamination in Oxygen Top Blowing 292

Mazun, A.I., and A.S. Ovchinnikov. Gas Content in Steel Made in a Converter With Various Types of Blasts and Blowing 299

Afanas'yev, S.G., M.M. Shumov, and M.P. Kvitko. Some Kinetic and Process Regularities in the Oxygen Top Blowing of Pig Iron 308

Card 11/16

SOV/5411

Physicochemical Bases of (Cont.)

Zaykov, S. T. Using Lime-Iron-Ore Briquettes for Processing Pig Iron in a Converter With Oxygen (Blast)

319

PART III. NONMETALLIC INCLUSIONS AND
THE PROPERTIES OF STEEL

Popel', S. I., and G. F. Konovalov. Removing High-Temperature Melting Inclusions From Rimmed Steel

325

Volkov, S. Ye., and A. M. Samarin. Effect of Deoxidation on the Desulfurization of Steel

331

Butakov, D. K. Effect of Hydrogen on the Separation of Sulfur in the Structure of the Cast Steel

337

Rostovtsev, S. T., D. I. Turkenich, V. I. Baptizmanskiy, and K. S. Prosvirnin. Nonmetallic Oxide Inclusions in Rail Steel Made in a Converter
Card 12 /16

344

BAPTIZMANSKIY, V.I.

Investigating on models the top blowing of metals.
Izv. vys. ucheb. zav.; chern. met. 5 no.10:31-41 '62.
(MIRA 15:11)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Converters—Models)

BAPTIZMANSKIY, V.I.

Ways of expanding and improving the oxygen-blown converter
process. Izv. vys. ucheb. zav.; chern. met. 7 no.2:49-55
'64. (MIRA 17:3)

1. Dnepropetrovskiy metallurgicheskiy institut.

KARPUNIN, A.M.; PROSVIRIN, K.S.; BESEDIN, P.T.; ORGIYAN, V.S.;
BAPTIZMANSKIY, V.I.; SHCHERBINA, P.A.; REKHLIS, G.N.

Rails made of low-alloy, acid, Bessemer steel. Stal' 24
no.5:448-451 My '64. (MIRA 17:12)

1. Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo,
Dnepropetrovskiy metallurgicheskiy institut i Ukrainskiy
institut metallov.

YANOVSKIY, I.L.; RUBINSKIY, P.S.; BAPTIZMANSKIY, V.I., doktor tekhn. nauk

Effect of leaving the final slag in a converter on the indices
of the oxygen-blown converter process. Met. i gornorud. prom.
no.1:17-20 Ja-F '65. (MIRA 18:3)

YANOVSKIY, I.L.; ZHIGULIN, V.I.; RUBINSKIY, P.S.; BAPTIZMANSKIY, V.I.

Studying the causes of ejection from converters. Izv. vys. ucheb.
zav.; chern. met. 8 no.5:31-39 '65. (MIRA 18:5)

1. Dnepropetrovskiy metallurgicheskiy institut i Metallurgicheskiy
zavod imeni Petrovskogo.

SALAGEAN, Tr.; HRELESCU, M.; STOLANOVICI, P.; BĂR, F.

Action of aluminum oxide on ceramic fluxes. Studii tehn Timisoara 9
no.1/2:19-28 '62.

TOPCIU, Vl.; BARCARU, Elena; BĂR, Fr.; FERENCZY, St.; MARTONY, A.

Methods of preparing the phagoresistant stems of *Clostridium acetobutylicum* Weitzmanni, and results obtained from the laboratory and factory tests. *Studii chim Timisoara* 9 no.1/2:141-160 Ja-Je '62.

1. Fabrica de butanol-acetona "Solventul" si Institutul de Igiena, Timisoara.

HRELESCU, Mircea; POPOVICI, David; BAR, Frideric

Alloying mild steel with chromium and manganese in automatic
build-up welding with band electrodes. Constr mas 16 no. 2;
77-80 F '64.

I. 41804-66 EWP(v)/T/EWP(t)/ETI/EWP(k) LJP(g) JH/HM/WR

ACC NR: AP6031547

SOURCE CODE: RU/0027/65/010/002/0347/0357

AUTHOR: Hrelescu, Mircea; Vas, Alexandru; Lipovan, Leonard; Bar, Friedrich

ORG: Timisoara Technical Research Center, Academy of the Socialist Republic of Rumania, Timisoara (Academia Republicii Socialiste Romania, Centrul de cercetari tehnice)

TITLE: Contributions to the study of the destruction by cavitation of some steels obtained by electric arc alloying

SOURCE: Studii si cercetari de metalurgie, v. 10, no. 2, 1965, 347-357

TOPIC TAGS: chromium steel, manganese steel, cavitation, welding technology

ABSTRACT: The authors studied the resistance to destruction by cavitation of metals deposited by welding and obtained through the alloying of soft steels in electric arcs with the aid of ceramic fluxes. As compared to a cast steel, the metals deposited by welding were found to have a better resistance to cavitation, especially in the case of Cr-Mn steels. The use of suitable ceramic fluxes was found to lead to deposited metals with good anti-cavitation properties.

Orig. art. has: 7 figures and 2 tables. [JPRS: 34,166]

SUB CODE: 11, 20 / SUBM DATE: none / ORIG REF: 002 / SOV REF: 010
OTH REF: 005

Card 1/1 af

BAR, I., prof., inzh.

Practice of mechanizing work and equipment repair in strip
mines. Sbor. trud. MISI no.39:409-410 '61.
(MIRA 16:4)

1. Fraybergskaya gornaya akademiye, Germanskaya Demokrati-
cheskaya Respublika.

(Germany, East—Strip mining—Equipment and supplies)

AUTHOR: Bar, I.G. and Engel G.A., Engineers. 104-4-20/40

TITLE: The first year of operation of mechanised repair stations.
(Pervyy god ekspluatatsii remontnykh mekhanizirovannykh stantsiy.)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957,
Vol. 28, No.4, pp. 67-70 (U.S.S.R.)

ABSTRACT: Recent increases in the volume of repair and operational work on transmission lines that has resulted from extension of the lines has obliged the operating staff to reorganise their work and to improve its technical basis. With this end in view in 1955-56 the power systems created 150 mechanised repair stations and in 1957 a further 14. Mechanised repair stations represent a new type operational organisation which replace line sections. Repair and operational work on the lines is carried out by centralised complex methods. With these methods the work can be carried out in two or three patrols with great economy of time as compared with piecemeal repair in which the repair squads repaired individual defective elements and wasted much time on going from one place to another and in climbing up and down poles. With complex
1/2 organisation of repair work the brigade carries out the greatest possible amount of work every time that it goes out on

The first year of operation of mechanised repair stations.
(Cont.)

104-4-20/40

the line. Numerous examples of the work of these mechanised stations are quoted; some power systems still do not recognise the mechanised repair stations as a new organisational unit and so do not use them to full advantage. During the first period of operation the stations did not receive all the necessary machines but even so the work was much improved. As a result of the introduction of complex maintenance repair work the output of labour was doubled and the duration of work on the lines reduced. Simultaneous major overhaul of the lines by several brigades provided with automobile transport was equally effective. Further practical examples of this are quoted. There has been considerable reduction in the work required to clear the course of the lines. In several systems the cutting of undergrowth by hand has been replaced by chemical spraying. In many cases individual machines and the stations as a whole have had a high load factor but part of the 2/2 equipment has not been fully used particularly electrical tools and equipment for live line working.

AVAILABLE:

h6599-66 T/EWP(t)/ETI IJF(c) JD

ACC NR: AP6023476

SOURCE CODE: CZ/0038/65/000/004/0126/0129

AUTHOR: Pelcik, Jiri--Pelchik, Y.; Bar, Jaromir--Bar, Ya.

ORG: A. Zapotocky Military Academy, Brno (Vojenska akademie A. Zapotockeho)

TITLE: Adsorption of ruthenium on solid sorbents in acid aqueous solutions

SOURCE: Jaderna energie, no. 4, 1966, 126-129

TOPIC TAGS: ruthenium, aqueous solution, adsorption, solution kinetics

ABSTRACT: The adsorption kinetics of ruthenium were investigated. The adsorptive factors of ruthenium were established for solutions of 0.1 M hydrochloric acid and in acetate buffered solutions at pH 5.5 of ruthenium nitrosonitrate on the surface of teflon, glass, polyvinyl chloride, polyethylene, paper, rubber, activated charcoal, and wool for ruthenium concentrations of 0.084 and 0.0084-g-at/l. This paper was presented by M. Bezdek. Orig. art. has: 2 figures and 1 table. [JFRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 004 / SOV REF: 005
OTH REF: 001

Card 1/1 rfs

0915

1436

BAR, Ludwik (Warszawa)

Technical functions in building; building licenses.
Przeł budowl i bud mieszk 33 no.6:331-332 Ja'61

BAR, Ludwik, dr (Warszawa)

"Liability of the architect" by [Dr] Walter Bindhardt. Reviewed
by Ludwik Bar. Przegl budowl i bud mieszk 35 no.4:237-238 Ap '63.

BAR, Ludwik (Warszawa)

New building legislation. Przegl budowl i bud mieszk 33
no.4:207-208; 213-214 Ap'61.

CZ/4-60-5-6/35

AUTHOR: Bár, Oldrich, Department Manager

TITLE: Fifteen Years Development of the ZPS Works at Gottwaldov

PERIODICAL: Nová Technika, 1960, No. 5, pp. 202 - 206

TEXT: The author deals with the history of the Národní podnik, Závody přesného strojírenství (Precision Mechanics Plants, People's Enterprise) at Gottwaldov. Since 1951, the following types of turret lathes have been produced: R 5, RN 36, RN 60, R 12, RT 80, RT 26/34, the multispindle automatic lathes AN and ANK, the AD type automatics; the SK 25 type vertical lathes were delivered to the USSR. In addition, seven cranes of 20 ton load capacity have been exported to the USSR. Until 1965, the Plant will produce 33 types of turret lathes. The ZPS Works production program includes the following machinery: bootmaking machines, mills, precise dividing wheels, component parts for industrial sewing machines, small transformers, motors for computers, recorders etc; hoists, cranes, power tools, single-function machines etc. Among others, 12 designs of machine tools will be displayed at the Second Brno Sample Fair, e.g. the turret lathes RP and RB 63, the FK 500 profiler, the AD 6A type precise automatic lathe, and the six-spindle AN 6/40 type automatic lathe with double-indexing attachment. Then the author deals with the expansion ✓

Card 1/2

Fifteen Years Development of the ZPS Works at Gottwaldov - CZ/4-60-5-6/35

of the Plant at Malenovice; in 1959, the construction of machine shops was completed and during the Third Five-Year Plan the new cast-steel foundry will be put in operation. The names of merited workers are listed; the Řád práce (Order of Labor) was awarded to Josef Hrdlička, to the Laureát Státní cena (State Prize Winner) Doctor Engineer Josef Doškář for his inventions in the field of metallurgy, to Stanislav Ferdus, Fr. Havlík, Adolf Šrámek; the Řád Republiky (Order of the Republic) was awarded to Ludvík Vodárek and to Jos. Švrček. Data are given on the competitive obligations in honour of the 15th anniversary of liberation, followed by percent figures on the production increase and on the increased average wages (1,296 Kčs in 1953, 1,469 Kčs in 1959). Figure 1 shows the increase of production from 1946 to 1960; Figure 2 shows the productivity increase, and Figure 3 the increase of average wages for the same period of time. Finally the author deals with housing construction, social welfare and recreation facilities for workers. There are 3 diagrams and 5 photographs. ✓

ASSOCIATION: TRV ZPS n.p., Gottwaldov (ZPS, People's Enterprise, Gottwaldov)

Card 2/2

BAR, Oldrich

15 years of production successes in the Precision Machine Plants
of Gottwaldov. Nova technika no.5:202-206 '60.

1. Vedouci oddeleni TRV, Zavody presneho strojirenstvi, Gottwaldov.

(Machinery)

BAR, T.

TECHNOLOGY

PERIODICAL: PREZGLAD GEOLOGICZNY. Vol. 6, no. 3, Mar. 1953.

BAR, T. Brown coal in Trzydnik Maly. p. 123.

Monthly List of East European Accessions (EEAI) LC Vol. 3, no. 4
April 1959, Unclass.

5 (2), 21 (5)

AUTHOR:

Bar, Jaromir

SOV/32-25-8-8/44

TITLE:

Separation Methods in the Analysis of Mixtures of the Most Important Fission Elements. Review

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 917 - 926 (USSR)

ABSTRACT:

The analysis of ultramicro-quantities of radioactive elements formed at the fission of U^{233} , U^{235} , and Pu^{239} is effected by separation of these fission products (FE) achieved by simultaneous precipitation, extraction with organic solvents, distillation, electro-precipitation, or chromatography. The article contains a detailed review of the different separation and determination methods for (FE) based on reference literature. The individual methods are separately explained and the following paragraphs are mentioned: method of simultaneous-precipitation, extraction methods with organic solvents, distillation methods, methods of electro-precipitation, chromatographic methods, and several methods which apply the scintillation-gamma spectroscopy. There is a brief description of the

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Separation Methods in the Analysis of Mixtures of the Most Important Fission Elements. Review SOV/32-25-8-8/44

different determination possibilities of the following elements: Sr, Ba, Y, the elements of the rare earths, Ce, Zr, Pr, Nd, La, Nb, Cs, Te, promethium, J, Ru, Pb, Cd. There are 3 figures and 141 references, 30 of which are Soviet.

Card 2/2

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26275

Z/038/61/000/003/003/003
A201/A126

AUTHORS: Bár, Jaromír, and Polanský, Pavel

TITLE: The use of vibrations in the investigation of isotope adsorption

PERIODICAL: Jaderná energie, no. 3, 1961, 90 - 92

TEXT: One of the principal methods of studying the isotopic state in liquid phase is the adsorption method of isotopes on solid sorbents. The article describes experiments designed to test the suitability of vibrations for stirring the radioactive solution during adsorption on solid sorbents. The working solution contained the Pr-143 isotope in the form of chloride in a concentration of $\sim 10^{-12}$ gram atoms per liter. For pH regulation, the solution contained 0.01 mol/lit sodium acetate, 0.002 mol/lit sodium chloride, and hydrochloric acid in a quantity necessary to bring the pH number to 6.3. Analytic-grade reagents and redistilled water were used for the preparation of the solutions. The following solid-sorbent samples were used: Circular rubber foils from surgical gloves, 16 mm in diameter, 0.2 mm thick; polyamide (Silon) foil, 0.1 mm thick; "blue-ribbon"-grade filter paper; and square (16 x 16 mm) samples of cleaned, undyed, degreased wool fabric (47.8 mg/cm^2). The Silon samples were soaked in the working solution (without the

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A201/A126

The use of vibrations in the investigation of...

radioisotope) for 16 hours prior to the experiment. A vibrating table was used for the agitation of the solution during the adsorption on the samples. The vibrations of the table were produced by an electromagnet fed from a.c. line. On the table were placed crystallization dishes with 50 milliliters (ml) of the working solution with Pr-143, and a series of 7 samples. The solution with the samples was agitated either by vibrations (100 oscillations/sec) with an amplitude of ~0.1 mm, or by a magnetic agitator (150 rpm); at times, it was left undisturbed. A control solution with samples was agitated in Erlenmeyer flasks by a flutter mixer (2.5 oscillations/sec, 12 mm amplitude). After the preselected adsorption time the filter-paper and wool-fabric samples were quickly rinsed three times in 1 ml of 96% ethanol, using a suction cup to remove the superfluous radioactive solution. The rubber and Silon samples were rinsed by successive submerging in three dishes with 96% ethanol for 3 - 5 seconds. Previous checks had shown that 96% ethanol does not cause desorption of Pr-143 from the sorbents during such a short time. After drying the samples, beta activity on either side of each sample was measured by a beta counter with a window mass of 1.54 mg/cm². The percentage of the isotope adsorption was calculated from the activity ratio on 1 cm² of the sample geometric surface to the activity of 1 ml of the working solution. The pH number of the so-

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A201/A126

The use of vibrations in the investigation of...

lution was checked before and after the experiment and the weight loss during the agitation in the solutions was determined. The results of the experiments can be summarized as follows: The kinetic curves of the Pr-143 adsorption on the rubber foil are similar for agitation by both vibrations and flutter mixing; the same is true for the adsorption on the Silon foil. This indicates that vibrations with an amplitude of ~0.1 mm have an influence on the isotope diffusion on the sorbent surface similar to that of agitation in a flutter mixer. It can be assumed that flutter mixing causes an enlargement of the pores of the filter paper and thus enables adsorption also on those fibers of the paper which were not accessible to adsorption prior to the disruption of the texture. Adsorption on wool fabric with flutter mixing could not be established due to the complete mechanical destruction of the fabric. Isotope adsorption without agitation on sorbents which were previously subjected to vibrations in a nonradioactive solution was the same as on samples which were not subjected to this operation. This indicates that vibrations in the aqueous phase do not change the adsorption capacity of the sorbents under investigation. The vibration method has the advantage that it does not affect the adsorption capacity of the sorbents nor does it mechanically disrupt samples such as filter paper or wool fabric. Appreciation is extended to Engineer A. Hynšt and F. Koza for designing the vibration table. (Technical editor: V. Kačena). There

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A201/A126

The use of vibrations in the investigation of...

are 2 figures, 1 table and 2 Soviet-bloc references.

ASSOCIATION: Vojenská akademie Antonína Zápotockého, Brno (Antonín Zápotocký
Military Academy, Brno)

Card 4/4

BAR, V.; FRANK, L.

Effect of climatic therapy on certain pulmonary diseases in children
observed in a pediatric hospital in Velke Losiny. Cesk.pediat.15
no.8:737-740 Ag '60.

1.Detska lecebna ve Velkych Losinach, reditel dr V.Bar Krajska
hygienicko-epidemiologicke stanice, Olomouc.
(LUNG DISEASES in inf & child)
(CLIMATE ther)

BAR, V.; NOVAKOVA, M.; MACEK, M.

Changes in physical condition and ventilatory function of asthmatic children and long term results of climatotherapy. Cesk.pediat. 15 no.9:766-771 S '60.

1. Detska lecebna ve Velkych Losinach, reditel MUDr. V.Bar.
(ASTHMA in infancy & childhood)
(CLIMATE ther.)

EXCERPTA MEDICA Sec 6 Vol 13/10 Internal Fed Oct 59

5779. THE ACTIVATION OF FIBRINOLYSIS IN SEVERE ABRUPTIO PLACENTAE - Aktywizacja fibrynolizy w przypadku przedwczesnego odklejenia się łożyska - Bar-Pratkowska J. and Niewiarowska M. II. Klin. Położnictwa i Chor. Kobięc. A.M., Warszawa - POL. TYG. LEK. 1958, 13/48 (1908-1910) Tables 1

In the patient's plasma the plasminogen increased, the antiplasmin diminished and the thrombin inhibitor appeared. This inhibitor was not identical with heparin. It is suggested that it may be a product of the lysis of fibrinogen and fibrin by plasmin described by Niewiarowski and Kowalski as antithrombin V. (X, 6)

BARA, Anna

New methodical possibilities in cholesterol determination. Kiserletes
orvostud. 10 no.1:96-99 Feb 58.

1. Szombathelyi Megyei Korhaz Kozpanti Laboratoriuma.
(CHOLESTEROL, in blood
determ., comparison of various methods (Hun))

PAPOLCZY, Antal, dr.; BARA, Anna, dr.

Investigations on lipid metabolism of patients with cancer and
pulmonary tuberculosis. Orv.hetil. 101 no.38:1346-1347 18 S '60.

1. Vas megyei Tanacs "Markusovszky" Korhaz, Tudosebeszeti Osztaly
es Kozponti Laboratorium
(NEOPLASMS metab.)
(TUBERCULOSIS, PULMONARY metab.)
(LIPIDS metab.)

GIBINSKI, Kornel; PROBA, Bronislaw; BARA, Boleslaw

Analysis of time connections in ballistocardiography. Polskie
arch. med.wewn. 25 no.2:271-282 '55.

1. Z III Kliniki Chor.Wewnetrznych Sl.A.M. w Bytomiu. Kierownik:
prof. dr. K. Gibinski. III Klinika Wewn.Slaskiej A.M. Bytom,
Batorego 15.
(BALLISTOCARDIOGRAPHY,
time connections)

BARA, Boleslaw

Statistics of diabetes mellitus in Bytom. Polskie arch.
med. wewn. 26 no.7:1139-1144 1956.

1. Z III Kliniki Ch. Wewnętrznych Sl. Akad. Medycznej w Bytomiu
Kierownik: prof. dr. med. K. Gibinski. Bytom, ul. Batorego 15,
III Klinika Chorob Wewn.
(DIABETES MELLITUS, statistics,
in Poland (Pol))

Bronislaw

SKURSKA, Zofia; MAKOWER, Henryk; GIBINSKI, Kornel; BARA, Bronislaw

Studies on Cocksackie viruses. II. Cocksackie viruses in Bornholm
disease. Arch. immun. ter. dosw. 5:197-218 1957.

(PLEURODYNIA, EPIDEMIC, etiol. & pathogen.

Cocksackie viruses, isolation & typing (Pol))

(COXSACKIE VIRUSES, infect.

epidemic pleurodynia, isolation & typing of viruses (Pol))

EXCERPTA MEDICA Sec. 17 Vol. 3/11 Public Health Nov. 57

3331. BARA B. III Klin. Chor. Wewn. Śl. A.M., Bytom. "Choroba Bornholmska na terenie Bytomia. Bornholm disease in the territory of Bytom POL. TYG. LEK. 1957, 12/4 (126-128) Graphs 1

During the period 28/8/1954 to 31/3/56, 64 cases were registered. Of 37 in which virological tests were carried out, the result was positive in 16. Most cases were observed in the end of the summer. One patient was from Warsaw. (XX, 17)

2. III Kliniki Chorob Wewnętrznych

Śl. A.M. w Bytomiu; Kierownik:

Prof. dr. Korneł Gibiński) Adres:

Bytom, ul. Batorska Nr. 15. III KL.

Chor. Wewn. Śl. A.M.)

BARA, Boleslaw; HARTLEB, Marian; WIECZOREK, Irena

Biochemical research on venous blood of extremities in obliterative vascular lesions. I. Oxidation of venous blood. Polskie arch. med. wewn. 28 no.5:651-662 1958.

1. Z III Kliniki Chorob Wewn Sl.A.M. w Bytomiu. Kierownik:prof dr med. K. Gibinski. Adres: Bytom, Batorego 15.

(VASCULAR DISEASES, PERIPHERAL, blood in
oxygen in obliterative dis (Pol))

(OXYGEN, in blood

venous, in obliterative peripheral vasc. dis. (Pol))